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CLAIMS:

What is claimed is:

1.   A method for service time analysis in a computer
5   network, comprising:

      receiving a request from a network client machine
for an electronic document and recording an initial time
value for the request;

      forwarding the request to an origin server and
10   receiving a response stream containing the electronic
document from the origin server;

      sending the response stream to the client machine,
wherein the response stream is instrumented;

      receiving a uniform resource identifier (URI)
15   request from the client machine, wherein the request is
for a resource embedded within the electronic document,
and recording a service time value for completing the
request for the electronic document;

      forwarding the URI request to the origin server and
20   receiving a URI response from the origin server;

      updating the service time value; and

      sending the URI response to the client machine.

2.   The method according to claim 1, further comprising
25   a key/value table, wherein the key is a cookie in a
request header and the value is a time stamp signifying
the service time for a request.

3.   The method according to claim 1, wherein the
30   instrumented response stream further comprises:

      the initial time value of the request; and

      service time taken for the origin server to respond.

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4.   The method according to claim 1, wherein all steps are performed by a single reverse proxy server.

5   5.   The method according to claim 1, wherein the steps are performed by multiple reverse proxy servers, wherein one server acts as the controlling quality-of-service monitor and the other servers are subordinate to the controlling monitor.

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6.   The method according to claim 5, wherein:

the controlling monitor sends a sample-on command to the subordinate servers;

in response to the sample-on command, the

15   subordinate servers record service time metrics for request transactions;

the controlling monitor sends a sample-off command to the subordinate servers;

in response to the sample-off command, the

20   subordinate servers send their respective service time records to the controlling monitor; and

the controlling monitor analyzes and reorganizes the service time records from the subordinate servers into a single record.

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7.   A computer program product in a computer readable medium for use in a data processing system, for service time analysis in a computer network, the computer program product comprising:

30   instructions for receiving a request from a network client machine for an electronic document and recording an initial time value for the request;

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instructions for forwarding the request to an origin
server and receiving a response stream containing the
electronic document from the origin server;

instructions for sending the response stream to the
5   client machine, wherein the response stream is
instrumented;

instructions for receiving a uniform resource
identifier (URI) request from the client machine, wherein
the request is for a resource embedded within the
10   electronic document, and recording a service time value
for completing the request for the electronic document;

instructions for forwarding the URI request to the
origin server and receiving a URI response from the
origin server;

15   instructions for updating the service time value;
and

instructions for sending the URI response to the
client machine.

20   8.   The computer program product according to claim 7,
further comprising a key/value table, wherein the key is
a cookie in a request header and the value is a time
stamp signifying the service time for a request.

25   9.   The computer program product according to claim 7,
wherein the instrumented response stream further
comprises:

the initial time value of the request; and
service time taken for the origin server to respond.

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10.   The computer program product according to claim 7,
wherein all instructions are performed by a single
reverse proxy server.

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11.   The computer program product according to claim 7,
wherein the instructions are performed by multiple
reverse proxy servers, wherein one server acts as the
controlling quality-of-service monitor and the other
10   servers are subordinate to the controlling monitor.

12.   The computer program product according to claim 11,
further comprising:
        instructions for sending a sample-on command from
15   the controlling monitor to the subordinate servers;
        in response to the sample-on command, instructions
for the subordinate servers to record service time
metrics for request transactions;
        instructions for sending a sample-off command from
20   the controlling monitor to the subordinate servers;
        in response to the sample-off command, instructions
for the subordinate servers to send their respective
service time records to the controlling monitor; and
        instructions for the controlling monitor to analyze
25   and reorganize the service time records from the
subordinate servers into a single record.

13.   A system for service time analysis in a computer
network, comprising:
30   a first receiving component which receives a request
from a network client machine for an electronic document
and records an initial time value for the request;

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a first communication component which forwards the
request to an origin server and receives a response
stream containing the electronic document from the origin
server;

5   a second communication component which sends the
response stream to the client machine, wherein the
response stream is instrumented;

a second receiving component which receives a
uniform resource identifier (URI) request from the client

10   machine, wherein the request is for a resource embedded
in the electronic document, and records a service time
value for completing the request for the electronic
document;

a third communication component which forwards the

15   URI request to the origin server and receives a URI
response from the origin server;

an updating component which updates the service time
value; and

a fourth communication component which sends the URI

20   response to the client machine.

14.   The system according to claim 13, further comprising
a register which maintains a key/value table, wherein the
key is a cookie in a request header and the value is a

25   time stamp signifying the service time for a request.

15.   The system according to claim 13, wherein the
instrumented response stream further comprises:

the initial time value of the request; and

30   service time taken for the origin server to respond.

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16.   The system according to claim 13, wherein all components are contained in a single reverse proxy server.

5   17.   The system according to claim 13, wherein the components are contained in multiple reverse proxy servers, wherein one server acts as the controlling quality-of-service monitor and the other servers are subordinate to the controlling monitor.

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18.   The system according to claim 17, further comprising:

        a first communication component which sends a sample-on command from the controlling monitor to the

15   subordinate servers;

        a plurality of recording components in the subordinate servers which, in response to the sample-on command, record service time metrics for request transactions;

20   a second communication component which sends a sample-off command from the controlling monitor to the subordinate servers;

        a plurality of response components in the subordinate servers which, in response to the sample-off

25   command, send their respective service time records to the controlling monitor; and

        a processor in the controlling monitor which analyzes and reorganizes the service time records from the subordinate servers into a single record.